

INDEX

METALLURGIST

Nos. 1-12, 1962



METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation published August, 1962

No. 1, pp. 1-52

January, 1962

CONTENTS

	PAGE	RUSS. PAGE
Fulfilling the Resolutions of the Party. The Problems of the Trade Union Organizations in Connection with the Resolutions of the 22nd Congress of the Communist Party of the Soviet Union. <u>V. A. Podzerko</u>	1	1
Heroes of the Magnitnaya Mountain. <u>A. Khinkis</u>	4	3
THE BLAST FURNACE INDUSTRY		
Blowing and Operating a '2000 m ³ Blast Furnace. <u>A. V. Zagreba, N. F. Slin'ko, and G. I. Fedorenko</u>	9	8
The Production of Pellets and Their Use in Smelting. <u>A. M. Chernyshev</u>	15	13
THE STEELMAKING INDUSTRY		
Smelting Steel of Increased Strength in Large-Capacity Furnaces. <u>A. I. Moiseenko, P. G. Terziyan, and N. G. Komov</u>	22	19
Production of Charge Iron in the Basic Open-Hearth Furnace. <u>O. N. Sokolov, V. P. Tunkov, and I. I. Fomin</u>	25	21
Increasing the Durability of the Steel Tap Hole. <u>Zh. A. Vydrina and F. N. Simonenko</u>	28	24
Mechanization of the Removal of the Bucket from the Ladle. <u>A. M. Kosolapov</u>	29	25
The Removal of Dust from under the Checkers of the Regenerators by Means of Cleaning Flues. (From Practices Abroad). <u>A. Lekhtik</u>	30	26
ROLLED AND TUBULAR PRODUCTS		
Experience in the Use of a 2500 mm wide-strip mill. <u>S. A. Leont'yev and V. P. Sud'ya</u>	32	27
The Rolling of Channel Sections with Increased Taper in the Finishing Groove. <u>N. P. Skryabin, I. Ya. Vinokurov, V. D. Korshchikov, and I. M. Kochetov</u>	35	30
Experience in Working Reheating Furnaces with Radiation-Convection Recuperators. <u>K. A. Belomestnov</u>	37	31
The Gripping of Tube-Billets for Hot Sawing. <u>V. G. Attaryan</u>	39	33
The Preparation of Turbine Blades by Rolling and Welding. <u>I. V. Gunin and A. A. Slin'ko</u>	41	35
EXPERIENCE OF INNOVATORS		
Their Own Achievement. <u>N. Tereshko</u>	43	36
ON LABOR SAFETY		
Main Wealth. <u>N. Mezhekov</u>	45	37
A Great Contribution to the Matter of Labor Protection. <u>P. D. Ermakov</u>	46	38
NEW BOOKS		
Safety Rules in the Rolling Industry. <u>M. M. Dunaevskii, B. D. Il'inskii, N. V. Sinebryukhov, and M. M. Vorkel'</u>	48	39

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation published August, 1962

No. 2, pp. 53-100

February, 1962

CONTENTS

	PAGE	RUSS. PAGE
Results and Perspectives	53	1
Five Metallurgical Bases for Communism. <u>S. M. Filippov</u>	54	2
An Outstanding Worker in Soviet Metallurgy	58	5
THE BLAST FURNACE INDUSTRY		
Automatic Regulation of Blast Among the Tuyeres of the Blast Furnace. <u>Ts. P. Krivoi,</u> <u>Yu. Ya. Treister, and É. M. Sherman.</u>	59	6
A Charging System with Two Large Bells. <u>A. N. Pokhvisnev, V. P. Tarasov, and</u> <u>F. P. Tarasov</u>	62	9
Quality of Erection of Sintering Machines and Means of Improving It. <u>Yu. V. Makarov</u> . . .	65	12
Repair of Large Blast Furnace Bells. <u>R. F. Rybochkin.</u>	67	14
NEW BOOKS		
Mechanical Equipment of Sinter Plants. <u>I. I. Neshcheret</u>	69	16
THE STEELMAKING INDUSTRY		
Method of Manufacturing Hearths for the DSP-80 Electric Furnaces. <u>B. V. Barvinskii</u>	71	17
Use of Nickel-Containing Grinding Dust in Open-Hearth Furnaces. <u>N. V. Keis,</u> <u>O. Ya. Vainshtein, V. A. Khryukina, L. A. Kamkina, and E. I. Korablev</u>	76	20
Port End for Heating an Open-Hearth Furnace with Natural Gas. <u>I. I. Kobeza,</u> <u>E. I. Bembinek, and V. M. Smirnov.</u>	78	22
The Use of Titanium Sponge in the Production of Stainless Steels. <u>N. S. Bachugova</u>	81	25
High-Calorie Fuel for Open-Hearth Furnaces. <u>I. B. Polyak.</u>	82	26
ON LABOR SAFETY		
Lubricating Open-Hearth Molds with Bitumen No. 4-5. <u>G. Medvednikov</u>	85	27
ROLLED AND TUBULAR PRODUCTS		
The Warm Drawing of Steels and Alloys Difficult to Deform. From the Proceedings of a Coordinating Conference. <u>D. A. Teimer, V. V. Nagovitsin, and V. M. Afonina</u>	86	28
A New Technique for Preparing Bright Bar from High Speed Steel R18. <u>Ya. Kh. Sartan.</u> . . .	88	31
An Installation for the Warm Drawing of Steels Difficult to Deform. <u>G. A. Khasin,</u> <u>V. G. Chikina, A. I. Bogdashkin, G. G. Rannev, G. L. Bruns, and Yu. I. Vashchenko.</u> .	91	33
A Slide Rule for Determining the Weight and Length of Tube and Continuous Sections. <u>Yu. V. Tishinskii</u>	93	35

CONTENTS (continued)

	PAGE	RUSS. PAGE
The All-World Forum of Proletariat Solidarity. <u>Ya. Brodski</u> (Not Translated)	95	36
RATIONALIZATION AND INVENTION		
With the Metal Workers Around Moscow. <u>B. Chusov</u>	96	38

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation published August, 1962

No. 3, pp. 101-150

March, 1962

CONTENTS

	PAGE	RUSS. PAGE
New Techniques at the Metallurgical Plants of the Russian Soviet Federated Socialist Republic in 1962. <u>N. I. Sheftel'</u>	101	1
THE BLAST-FURNACE INDUSTRY		
On the Construction and Durability of the Hearth and Well of the Blast Furnace. <u>E. V. Kochinev</u>	104	4
Improvement of the Drive of the Sintering Machine. <u>D. P. Pritykin</u>	108	8
Obtaining Clean Ingot Surfaces on the Casting Machine. <u>V. F. Pashinskii</u>	110	10
An Electric Safeguard Against Overfilling the Hopper for the Ore Charge. <u>V. E.</u>	111	10
Mechanization of the Removal of Ferromanganese Ingots. <u>M. M. Gladkii</u>	112	11
The Organization of Current Repairs of Blast Furnaces without Burning Gas at the Mouth. <u>V. E.</u>	113	11
Change of the Installation and Reinforcement of the Grates on the Agglomerate Bins. <u>V. E.</u>	114	12
A Method of Repairing the Liners of Blast-Furnace Tuyeres. <u>V. E.</u>	115	12
THE STEELMAKING INDUSTRY		
The Use of Ore and Scrap in Converter Production. <u>D. B. Martsinkovskii</u>	116	13
The Conversion of Limestone Cupolas to Firing By Natural Gas. <u>L. V. Sudoplatov</u> , <u>B. V. Yasyunas</u> , and <u>G. Ya. Berkovich</u>	119	16
Ramming the Walls of An Open-Hearth Furnace With Refractory Pastes. <u>A. Lekhtik</u>	122	19
The Latest Position with Regard to Open-Hearth Furnace Overhauls. <u>V. I. Zhivago</u>	125	21
ROLLED AND TUBULAR PRODUCTS		
The Rolling of R-24 Rails from Semikilled Steel. <u>E. A. Demidovich</u>	127	23
New Groove Design for an Argon-Arc Welding Tube Mill. <u>E. M. Krichevskii</u> and <u>V. Ya. Gol'berg</u>	129	25
The Efficiency in Use of Steel, Weld-Deposited and Cast-Iron Rolls in the Finishing Stand of a 2800 mm Mill. <u>Yu. I. Krivososov</u>	132	27
Liquid Friction Vertical Bearings. <u>P. I. Tetel'baum</u> and <u>A. A. Kovtushenko</u>	135	31
SMALL-COMPONENT PRODUCTION		
Etching Baths With a Steel Shell. <u>B. Nikonov</u> and <u>V. Elistratov</u>	137	32
Ferrous Metallurgy of Uzbek in the Seven-Year Plan. <u>A. Lomov</u>	138	33

CONTENTS (continued)

	PAGE	RUSS. PAGE
FOR LABOR SAFETY		
An Analysis of Industrial Traumatism in Rolling Shops. <u>M. M. Borkel'</u>	141	35
INTERNATIONAL RELATIONS		
A Visit with Our Bulgarian Friends. <u>P. Fomin</u>	144	37
CHRONICLE		
The Second All-Union Congress of the Scientific-Technical Society of Ferrous Metallurgy.		
<u>D. A. Smolyarenko</u>	147	39

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation Published September, 1962

No. 4, pp. 151-196

April, 1962

CONTENTS

	PAGE	RUSS. PAGE
The 30th Anniversary of the Siberian Giant. <u>B. N. Zherebin</u>	151	1
Competition Between Three Giants. <u>N. Milovatskii</u>	154	4
Production Conference at the Kuznetsk Metallurgical Combine. <u>A. N. Glazov</u> and <u>A. D. Kolyvanov</u>	157	5
Three Years of the Seven Year Plan. <u>M. D. Karachentsev</u> and <u>A. F. Egorov</u>	159	7
Device for Distribution of Blast Among the Tuyères of a Blast Furnace. <u>V. V. Burtsev</u> and <u>Yu. O. Raev</u>	161	9
Smelting of Foundry Pig Iron. <u>A. F. Egorov</u>	164	11
The Automatic Charging of Furnaces. <u>V. G. Gur'yanov</u>	166	13
Kuznetsk Steel. <u>L. S. Klimasenko</u>	168	15
Masters of High-Speed Repairs. <u>G. A. Vinogradov</u> and <u>M. I. Esin</u>	172	17
Special Features of the Thermal Regime and Heating of Open-Hearth Furnaces. <u>V. N. Kazantsev</u>	174	20
Experience in Pouring Steel from Double-Stopper Ladles with Remote Control of the Stoppers. <u>L. S. Klimasenko</u> , <u>I. A. Sokolov</u> , and <u>E. Ya. Botnev</u>	176	21
The Blooming Mill at KMC. <u>P. G. Popov</u> and <u>N. I. Zakharenko</u>	179	24
Ways of Saving Metal. <u>L. Ya. Kravchenko</u> and <u>V. K. Kobyzhev</u>	181	26
Changing the Groove Design of the First Stand in 360 mm Mill. <u>N. I. Peskov</u> , <u>V. A. Osokin</u> , and <u>A. M. Korchemnyi</u>	186	29
The Central Works Laboratory. <u>P. S. Plekhanov</u>	189	32
Forward and Only Forward! <u>M. M. Privalov</u>	190	33
Looking Ahead. <u>A. Shtepa</u>	194	35
For the Common Good. <u>A. Krasil'nikov</u>	195	36

Publisher's Note

Two articles, beginning on pp. 37 and 39 in the original Russian edition, have been omitted since they are of a nontechnical nature.

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation published November, 1962

Nos. 5-6, pp. 197-292

May-June, 1962

CONTENTS

	PAGE	RUSS. PAGE
NUMBER 5, 1962		
Converter Steel - A Rich Field. <u>A. Aleksandrov</u>	197	Cover
The Sixth Congress of the Metallurgical Industry Trade Union. <u>V. A. Podzerko</u>	199	1
The 75th Anniversary of the Petrovskii Plant. <u>I. I. Korobov and V. I. Zhigulin</u>	204	4
THE BLAST-FURNACE INDUSTRY		
Is Constant Basicity of the Agglomerate Necessary? <u>Yu. T. Voloshin</u>	209	8
Errors in the Regulation of Gas Flow and the Distribution of Materials at the Mouth. <u>V. V. Poltavets</u>	210	9
The Dimensions of the Hearth and the Number and Parameters of the Air Tuyeres. <u>M. Ya. Ostroukhov</u>	213	12
The Granulation of Iron. <u>Yu. A. Orlov</u>	215	13
THE STEELMAKING INDUSTRY		
Deoxidation of 25L and 35 GL Steels by Ferromanganese in the Ladle. <u>R. A. Shutov</u>	217	15
The Packed Floor of the Open-Hearth Furnace. <u>V. P. Filatov, P. P. Semenenko</u> , <u>G. I. Baryshnikov, and V. I. Gudov</u>	218	16
Rational Working Diagram for the Reversing Devices of Open-Hearth Furnaces Fired with Natural Gas. <u>A. L. Turubiner and A. I. Savin</u>	221	18
Pouring Steel through Paraffin-Waxed Unburnt Magnesite Nozzles. <u>N. G. Terziyan and</u> <u>A. M. Marchenko</u>	223	20
Hydraulic Ingot-Mold Descaler. <u>A. N. Abramov</u>	224	21
Increasing the Life of the Back Walls of Open-Hearth Furnaces. <u>A. Shabalin</u>	225	21
ROLLED AND TUBULAR PRODUCTS		
Production of Economic Rolled Profiles at KMK. <u>I. I. Kuchko and N. P. Kudryavtsev</u>	226	22
The Effect of Reheating on the Scabbing of Low-Carbon Steel Killed with Aluminum. <u>V. Fridrikhsen and A. Zhdanov</u>	231	26
Cutting Rolls of High Hardness. <u>N. I. Khmelkov and M. M. Shapiro</u>	232	27
On Methods of Sealing Rotating Shafts. <u>L. N. Gorodetski</u>	234	28
Increasing the Life of Rolling Mill Spindles. <u>S. I. Beskaravainii</u>	236	31
NEW BOOKS		
Metallurgy of Ferrous Metals. <u>D. D. Burdakov and Z. G. Tsukernik</u>	238	39
Handbook for the Steelmaker. <u>M. I. Panfilov</u>	239	39

The articles on pages 32-38 of the Russian original have not been translated since they contain information of a nontechnical nature.

CONTENTS (continued)

	PAGE	RUSS. PAGE
NUMBER 6, 1962		
The Metallurgists of the Lipetskaya Magnitka	240	Cover
Toward a High Level of Mechanization and Automation in Ferrous Metallurgy, <u>V. A. Gerasimenko</u>	243	1
THE BLAST FURNACE INDUSTRY		
New Means for the Complex Automation of the Blast-Furnace Industry. <u>Yu. Ya. Treister</u>	246	3
Reconstruction of the Limestone Crushing Department of the Sintering Mill. <u>D. P. Pritykin</u>	249	5
Device for Supervising the Operation of the Large Bell of a Blast Furnace. <u>V. Ya. Kozhukh,</u> <u>G. P. Kaminskii,</u> and <u>Yu. Z. Ratner</u>	253	9
Improvement of the Equipment in the Blast-Furnace Unit of the Kuznets Metallurgical Combine (KMC). <u>I. N. Vikhrov</u>	255	11
Some Questions on the Design and Durability of the Hearth and the Well of Blast-Furnaces, <u>I. M. Galemín</u>	258	14
NEW BOOKS		
The Blast-Furnace Industry. <u>A. A. Vagin</u>	261	15
The Service of the Charging Apparatus of the Blast-Furnace. <u>M. Ya. Ostroukhov</u> and <u>I. G. Timofeev</u>	261	15
Means of Increasing the Output of Sintering Machines. <u>D. A. Kissin</u> and <u>K. A. Bovkun</u>	261	15
THE STEELMAKING INDUSTRY		
Automation of the Supervision and Control of the Thermal Conditions of the Electric Arc Furnace. <u>V. M. Vinogradov,</u> <u>Yu. E. Efroimovich,</u> <u>A. V. Kablukovskii,</u> and <u>V. I. Simonov</u> ..	263	16
Remote Control of Ladle Stoppers. <u>A. I. Sapko,</u> <u>L. G. Sviridenko,</u> <u>V. P. Dobrov,</u> <u>D. F. Gladkii,</u> <u>I. S. Buzunov,</u> and <u>G. V. Pichak</u>	266	18
All-Welded Steel Ladles. <u>V. A. Posazhennikov</u>	269	22
A Device for the Oxygen-Powder Burning of the Steel-Tapping Hole. <u>N. S. Bugrov</u> and <u>V. A. Kupriyanov</u>	271	23
A Bulldozer for Open-Hearth Repairs. <u>A. Skutin</u>	273	25
The Automatic Measurement of the Mixer Jacket Temperature. <u>Ya. S. Pinus,</u> <u>V. S. Gritskov,</u> and <u>A. P. Bezrukov</u>	274	26
ROLLED AND TUBULAR PRODUCTS		
Modernization of the Roughing Stand of a 2150-mm Sheet Mill. <u>A. F. Kuznetsov</u>	275	27
Mechanization and Automation of the Dressing of Billets. <u>E. I. Dorokhin</u>	277	29
Mechanization of the Removal of Slabs from Continuous Furnaces. <u>G. F. Isupov,</u> <u>V. P. Sud'ya,</u> and <u>P. I. Denisov</u>	280	32
The Surface Dressing of Rolled Products with Shot. <u>M. S. Karpyshev</u>	282	34
Automatic Pincers for Gripping and Transporting Loads	284	35
A Device for the Automatic Lubrication of Thrust Bearings. <u>A. F. Krisanov</u>	285	35
A Device for Knurling Rolling Mill Rolls. <u>I. Ya. Usik</u>	286	36
Public Structures Office of the New Tube (Novotrubnyi) Factory. <u>M. A. Freiberg</u>	287	37

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation Published March, 1963

Nos. 7-8, pp. 293-394

July-August, 1962

CONTENTS

	PAGE	RUSS. PAGE
NUMBER 7, 1962		
Let us Fulfill the Decrees of the 22nd Congress of the Communist Party of the Soviet Union.	293	2
On the Way to Technical Progress. <u>I. I. Bornatskii and N. A. Tereshchenko</u>	299	7
THE BLAST-FURNACE INDUSTRY		
Experience in the Operation of a Blast Furnace on Evaporative Cooling. <u>E. V. Slinchenko, N. P. Yarmolinskii, M. S. Kudoyarov and P. V. Anan'ev</u>	303	9
Reducing the Moisture Content of Tapping Hole Pastes for Blast Furnaces. <u>L. M. Orechkin and Yu. V. Materikin</u>	306	12
Charging Devices for a 1719 m ³ Blast Furnace. <u>N. D. Kirichenko</u>	309	14
THE STEELMAKING INDUSTRY		
The Technology of Melting and Pouring Cold-Rolled Transformer Steel. <u>L. N. Kononov and E. V. Pashchenko</u>	313	17
The Production of Semikilled St. 5ps Steel for Periodic Profiles. <u>I. A. Zaitsev, A. A. Kazakov, E. D. Akol'tsev, and V. V. Uvarov</u>	316	20
Casting 260 Tons of Steel in a Continuous Casting Plant Without Interruption of the Stream. <u>F. N. Grigor'ev, I. I. Druzhinin, and V. G. Osipov</u>	318	22
In the Steelmaking Shops of the Country.	320	23
NEW BOOKS		
Steel Production by the Method of Electro-Slag Remelting. <u>S. A. Leibenzon and A. F. Tregubenko</u> . . .	323	24
ROLLED AND TUBULAR PRODUCTS		
Experience in Mastering the Magnitogorsk Slabbing Mill. <u>L. V. Andreyuk</u>	324	25
A New Profile for the Ploughshare Periodic Strip for Agriculture. <u>N. Peskov, A. Burdin, and A. Korchemnyi</u>	329	29
Modernization of Mechanical and Electrical Equipment. <u>I. Ya. Usik and R. T. Kharitonov</u>	331	31
Automatic Facing of the Necks of Cast Iron Rolls. <u>N. Lafulin, G. Aripov, and N. Fain</u>	333	32
EXPERIENCE OF INNOVATORS		
We Steer the Course to Communism. <u>M. A. Troshev</u>	334	33
Young Cadres in Command. <u>D. Sprikut</u>	336	35
Furnace Attendant of the Seven-Year Plan. <u>I. Chirkov</u>	339	37
The Innovators of a Particular Mill. <u>S. Znatkov</u>	341	38
The First Seminar for Furnace Thermotechnics. <u>S. Pevzner</u>	343	40
NUMBER 8, 1962		
Errors in the Regulation of Gas Flow and the Distribution of Materials at the Mouth. <u>A. B. Shur</u>	344	2

CONTENTS (continued)

	PAGE	RUSS. PAGE
Mechanization of the Process of Opening the Iron Tap Hole, <u>G. A. Panev,</u> and <u>M. A. Zalevsky</u>	349	5
A Unit for Cooling and Loading Iron into Cars, <u>D. M. Rozhkov</u> and <u>A. V. Anurin</u>	351	7
Complete Utilization of the Iron Ore of the Urals, <u>I. S. Shapiro</u>	353	9
THE STEELMAKING INDUSTRY		
The Shape and Size of the Hearth of an Electric-Arc Steelmaking Furnace, its Lining, and Main- tenance of the Latter, <u>V. A. Kamardin</u>	356	11
Burning in New Bottoms of Open-Hearth Furnaces, <u>V. P. Filatov</u> , <u>P. P. Semenenko</u> , <u>G. I. Baryshnikov</u> and <u>V. I. Gudov</u>	359	14
The Use of the Unburned Metal-Encased Chrome Magnesite Bricks in Electric Furnace Walls, <u>M. N. Kaibicheva</u> , <u>N. I. Mar'evich</u> , <u>N. A. Tulin</u> , <u>I. V. Smakotin</u> , <u>P. A. Lande</u> , and <u>P. Ya. Terekhina</u>	362	16
Rapid Method of Laying the Regenerator Checkers of Open-Hearth Furnaces, <u>A. Lekhtik</u>	364	18
ROLLED AND TUBULAR PRODUCTS		
The Production and Use of Economic Hot-Rolled Sections, <u>B. G. Fastovskii</u> and <u>A. N. Funde</u>	365	19
Evolved Finishing Pass for Rolling Channel No. 10, <u>B. M. Ilyukovich</u> and <u>A. N. Skorokhodov</u>	370	23
Mechanization of Flame Scarfing of Blooms, <u>E. Kh. Shamovskii</u> , <u>A. D. Zykov</u> , <u>Z. K. Kaftanova</u> , <u>L. Ya. Kravchenko</u> , <u>N. P. Frolov</u> , <u>E. A. Zhuravkin</u> , and <u>V. L. Gorbatyuk</u>	371	24
Determination of Metal Economy (With Delivery of Rolled Products Based on Theoretical Weight), <u>N. P. Skryabin</u> , <u>B. V. Merekin</u> , and <u>V. D. Korshchikov</u>	375	27
More Tubes for the National Economy	377	29
FOR LABOR SAFETY		
Experience in Improving Working Conditions in Open-Hearth Furnaces, <u>M. E. Zhilo</u>	380	31
EXPERIENCE OF INNOVATORS		
Working Experience on Cold-Rolling Tube Mills, <u>P. N. Minin</u>	385	34
A Glorious Six Decades	386	36
METALLURGY ABROAD		
The Use of Oxygen in American Open-Hearth Production, <u>N. I. Perlov</u> and <u>V. A. Vladimirov</u>	388	37
CHRONICLE		
Achieving a High Level of Automation	392	39

Publisher's note: The articles on pages 1 and 34 of No. 8 were not translated since their contents were of a nontechnical nature.

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation Published April, 1963

Nos. 9-10, pp, 395-488

September-October, 1962

CONTENTS

	PAGE	RUSS. PAGE
NUMBER 9, 1962		
With a Confident Step. <u>S. M. Filippov</u>	395	1
THE BLAST-FURNACE INDUSTRY		
Blast-Furnace Operation Utilizing Natural Gas. <u>S. A. Sharadzenidze, N. V. Kashakashvili,</u> <u>P. P. Gladkoskok, M. Sh. Mindeli, V. V. Parastashvili, D. A. Rukhadze,</u> <u>Sh. F. Khoshtariya, and S. Sh. Sharashidze</u>	398	3
On the Construction and Durability of the Hearth and Well of Blast-Furnaces. <u>A. N. Chemyatin</u>	403	7
THE STEELMAKING INDUSTRY		
Improvements in the Melting and Pouring of Steel at the Kuznetsk Metallurgical Combine. <u>N. S. Mikhailets and A. E. Gorelkina</u>	406	10
A Rapid Method for Fritting the New Hearths of Large-Capacity Open-Hearth Furnaces. <u>M. G. Kozhanov, M. G. Nechkin, V. G. Antipin, and Yu. Yu. Ponomarev</u>	409	13
ROLLED AND TUBULAR PRODUCTS		
Development of the Technique of Tube Drawing on Drum Mills. <u>G. A. Savin</u> <u>and M. D. Medvinskii</u>	413	16
The Rolling of a Band Ring Section. <u>B. M. Ilyukovich and A. N. Skorokhodov</u>	416	19
Pits of Heat-Resistant Concrete for the Slow Cooling of Metal. <u>M. K. Ol'shanskii</u> <u>and G. B. Shpigun</u>	417	20
Experience in Setting up Roller Housings. <u>V. T. Khudik and P. M. Manusov</u>	419	22
Without a Technical Inspection Section. <u>P. Evseev</u>	421	24
EXPERIENCE OF INNOVATORS		
The Main Direction—Modernization and Reconstruction. <u>A. Komanovskii</u> <u>and D. Sprikut</u>	423	25
SCHOOL OF ADVANCED EXPERIENCE		
Operation of Continuous Bar Mills. <u>N. V. Litovchenko</u>	428	28
Letter to the Editor	432	31
FOR LABOR SAFETY		
Dry Dust Elimination When Finishing Pipes. <u>A. I. Nizharadze, Sh. E. Chilashvili,</u> <u>and G. G. Dzhaniashevili</u>	433	32
GENERAL PROBLEMS		
International System of Units	436	34

CONTENTS (continued)

	PAGE	RUSS. PAGE
FROM THE HISTORY OF TECHNOLOGY		
Two Hundredth Anniversary of the Beloretsk Metallurgical Combine. <u>V. M. Ovcharenko</u> . . .	440	36
METALLURGY ABROAD		
New Application of Oxygen in Electric-Arc Furnaces. <u>Z. Klochkovoi</u>	445	39
NEW BOOKS		
Book for Steel Workers. <u>E. I. Moshkevich, G. I. Antipenko, and E. F. Solov'eva</u>	446	cover
NUMBER 10, 1962		
A New Process for the Production of Special Steels. <u>G. V. Plechun</u>	448	4
The Vacuum Treatment of Transformer Steel. <u>E. I. Moshkevich</u>	450	6
Improvement in the Groove Design for the Rolls of a 550-mm Mill. <u>V. S. Berkovskii</u> and <u>P. M. Avrunin</u>	452	7
In the Heat-Treatment Department of the Plant. <u>N. D. Sedov and R. D. Mininzon</u>	455	11
Komsomol-Youth Brigade of Steelmaker V. Bezdenezhnyi. <u>I. A. Babanin</u> and <u>Ya. E. Kaplanskii</u>	457	13
The Brigade of Foreman M. Shalimov	458	14
The Brigade of Senior Roll Operator V. Ovechkin	459	14
Remote Control of Substations	459	14
THE BLAST-FURNACE INDUSTRY		
Automation at the Sintering Plant. <u>E. P. Lyskov</u>	461	19
Cooling the Hearth of the Blast-furnace with Panel Cell Coolers. <u>Laslo Feldi</u>	464	22
On the Durability of the Hearth and Well of the Blast-Furnace. <u>N. L. Ovcharenko</u>	466	24
Lipetsk Sintering Plant. <u>V. Kirichek</u>	467	25
Increasing the Life of the Links of the Casting Machines. <u>A. I. Soskov</u>	469	26
All-Cast Small Bell. <u>V. Pashinskii and G. Vakulenko</u>	469	26
A Stationary Device for Blowing the Coolers of Blast Furnaces with Compressed Air. <u>V. P. Emern'yanov</u>	470	27
THE STEELMAKING INDUSTRY		
The Desulfurization of Steel in Basic Open-hearth Furnaces. <u>A. F. Shabalin</u>	472	28
Reducing Metal Losses During the Pouring of Steel. <u>V. M. Borevskii</u>	473	29
Utilization of Refractory Blocks in Overhauling Open-Hearth Furnaces. <u>A. S. Zalkind</u>	475	31
ROLLED AND TUBULAR PRODUCTS		
On the Optimum Diameter of Wire-Rod for Wire Mills. <u>N. V. Litovchenko</u> and <u>M. A. Vitievskii</u>	479	34
Improving the Quality of Thin-Walled Tubing. <u>M. M. Musa-Zade and B. I. Podzharskii</u>	481	36
Rejection of Tubes in Rolling on Installations With Three-Roll Mills. <u>Yu. I. Vashchenko</u>	483	37

The articles on pages 1-3, 15-18 (Issue No. 10) of the Russian original have not been translated since they contain information of a nontechnical nature.

METALLURGIST

*A translation of METALLURG, the monthly
industrial technical journal of the
Ministry of Iron and Steel of the USSR*

Translation Published July, 1963

Nos. 11-12, pp. 489-596

November-December, 1962

CONTENTS

	PAGE	RUSS. PAGE
NUMBER 11, 1962		
The Smelting of Steel in Oxygen Converters. <u>S. G. Afanas'ev</u>	489	5
The Reserves of the Rolling Industry for the Service of Communism. <u>B. S. Shapiro</u>	490	6
An Ore Base for Ferrous Metallurgy in the USSR. <u>I. S. Shapiro</u>	494	9
The Steel Workers of the Urals Strive to Utilize Intrinsic Industrial Resources. <u>V. G. Pushkov</u> and <u>V. G. Vinokurov</u>	497	11
On the Basis of New Techniques. <u>M. Kamensky</u>	500	13
Reserves for Increasing Labor Productivity. <u>I. Genken</u>	504	17
Two Years' Experience in the Continuous Casting of Steel. <u>P. G. Glazkov</u> , <u>K. P. Murzov</u> , and <u>A. M. Kondratyuk</u>	507	19
The Country's Largest Shop for Continuous Furnace Welding of Tubes. <u>N. G. Sergeev</u>	510	22
Increase in the Productivity of Shops for the Continuous Furnace Welding of Tubes. <u>N. I. Kagan</u> ..	512	24
Surfacing of Equipment Part Must Be Used More Widely. <u>V. D. Pisklich</u>	514	26
Increasing the Durability of the Hearth and Well of Blast-Furnaces. <u>N. I. Vasilchenko</u>	520	30
Converter with a Detachable Mouth. <u>G. N. Kamyshev</u> and <u>O. P. Bolotov</u>	522	32
Reducing Losses in Metallurgy. <u>G. Brodsky</u>	523	33
NUMBER 12, 1962		
An Important Stage in the Building of Communism.	526	1
Constant Basicity of the Agglomerate--The Rule. <u>R. D. Kamenev</u> and <u>M. A. Sukonnik</u>	527	2
Blast-Furnace Master at the Makeev Metallurgical Plant. <u>M. A. Katsnelson</u>	528	4
Blowing Oxygen into the Depth of the Blast-Furnace Hearth. <u>V. I. Loginov</u> , <u>A. N. Chechuro</u> and <u>V. M. Dolgov</u>	529	4
On the Durability of the Well of the Blast-Furnace. <u>D. N. Reznikov</u>	535	9
Bottom Repair of Basic Open Hearth Furnaces Using Fine-Grain Refractory Powders. <u>V. P. Filatov</u> , <u>P. P. Semenenko</u> , <u>G. I. Baryshnikov</u> , and <u>V. I. Gudov</u>	538	11
Lining the Bottoms of Low-Capacity Electric-Arc Furnaces. <u>N. A. Tulin</u> and <u>N. F. Bastrikov</u>	540	13
Experience in Increasing the Life of Ingot Molds. <u>E. Sh. Barskii</u>	543	16
Hydro-Explosive Method of Breaking up Ingot Molds. <u>A. Lekhtik</u>	545	17
Work in the Casting Bay. <u>O. V. Trifonov</u>	545	17
The Groove Design for H-Beams on a 500-mm Mill. <u>I. I. Kuchko</u> and <u>I. A. Sharapov</u>	549	20
Instruments for the Automatic Regulation of the Heat Régime of Continuous Furnaces. <u>V. Yu. Kagonov</u> and <u>G. I. Obraztsov</u>	553	24
The Reconstruction of the Drive Gear of Thrust Bearings. <u>A. F. Krisanov</u>	555	25
High Endurance Drill Rope. <u>P. P. Osetrov</u> , <u>N. V. Sokolov</u> , <u>V. D. Korolev</u> , <u>V. F. Denet'ev</u> , and <u>R. M. Kuznetsova</u>	558	28

CONTENTS (continued)

	PAGE	RUSS. PAGE
There Are Reserves at "Dneprospetssal" <u>B. Sergeev</u>	560	29
Safety in the Gas Industry. <u>P. Vernigor</u>	563	30
Ferrous Metallurgy in Yugoslavia. <u>V. I. Bulavin</u>	566	32
100 Years of Continuous Rolling. <u>N. K. Laman</u>	570	35
TABLES OF CONTENTS, 1962	575	
AUTHOR INDEX, 1962	589	

METALLURGIST

Nos. 1-12, 1962

A Translation of Metallurg

- Abramov, A. N. Hydraulic Ingot-Mold Descaler - 224
 Afans'ev, S. G. The Smelting of Steel in Oxygen Converters - 489
 Afonina, V. M., see Teimer, D. A. - 86
 Akol'tsev, E. D., see Zaitsev, I. A. - 316
 Aleksandrov, A. Converter Steel - 197
 Anan'ev, P. V., see Slinchenko, E. V. - 303
 Andreyuk, L. V. Experience in Mastering the Magnitogorsk Slabbing Mill - 324
 Antipenko, G. I., see Moshkevich, E. I. - 446
 Antipin, V. G., see Kozhanov, M. G. - 409
 Anurin, A. V., see Rozhkov, D. M. - 351
 Aripov, G., see Lafulin, N. - 333
 Attaryan, V. G. The Gripping of Tube-Billets for Hot Sawing - 39
 Avrunin, P. M., see Berkovskii, V. S. - 452
 Babanin, I. A. and Ya. E. Kaplanskii. Komsomol-Youth Brigade of Steelmaker V. Bezdeneshnyi - 457
 Bachugova, N. S. The Use of Titanium Sponge in the Production of Stainless Steels - 81
 Barskii, E. Sh. Experience in Increasing the Life of Ingot Molds - 543
 Barvinskii, B. V. Method of Manufacturing Hearths for the DSP-80 Electric Furnaces - 71
 Baryshnikov, G. I., see Filatov, V. P. - 359
 Bastrikov, N. F., see N. A. Tulin - 540
 Belomestnov, K. A. Experience in Working Reheating Furnaces with Radiation-Convection Recuperators - 37
 Bembinek, E. I., see Kobeza, I. I. - 78
 Berkovich, G. Ya., see Sudoplatov, L. V. - 119
 Berkovskii, V. S. and P. M. Avrunin. Improvement in the Groove Design for the Rolls of a 550-mm Mill - 452
 Beskaravainii, S. I. Increasing the Life of Rolling Mill Spindles - 236
 Bezrukov, A. P., see Pinus, Ya. S. - 274
 Bogdashkin, A. I., see Khasin, G. A. - 91
 Bolotov, O. P., see Kamyshev, G. N. - 522
 Borevskii, V. M. Reducing Metal Losses during the Pouring of Steel - 473
 Borkel', M. M. An Analysis of Industrial Traumatism in Rolling Shops - 141
 Bornatskii, I. I. and N. A. Tereshchenko. On the Way to Technical Progress - 299
 Botnev, E. Ya., see Klimasenko, L. S. - 176
 Bovkun, K. A., see Kissin, D. A. - 261
 Brodsky, G. Reducing Losses in Metallurgy - 523
 Bruns, G. L., see Khasin, G. A. - 91
 Bulavin, V. I. Ferrous Metallurgy in Yugoslavia - 566
 Bugrov, N. S. and V. A. Kupriyanov. A Device for the Oxygen Powder Burning of the Steel-Tapping Hole - 271
 Burdakov, D. D. and Z. G. Tsukernik. Metallurgy of Ferrous Metals - 238
 Burdin, A., see Peskov, N. - 329
 Burtsev, V. V. and Yu. O. Raev. Device for Distribution of Blast Among the Tuyeres of a Blast Furnace - 161
 Buzunov, I. S., see Sapko, A. I. - 266
 Chechuro, A. N., see Loginov, V. I. - 529
 Chernyatin, A. N. On the Construction and Durability of the Hearth and Well of Blast-Furnaces - 403
 Chernyshev, A. M. The Production of Pellets and Their Use in Smelting - 15
 Chikina, V. G., see Khasin, G. A. - 91
 Chilashvili, Sh. E., see Nizharadze, A. I. - 433
 Chirkov, I. Furnace Attendant of the Seven-Year Plan - 339
 Chusov, B. With the Metal Workers Around Moscow - 96
 Demidovich, E. A. The Rolling of R-24 Rails from Semikilled Steel - 127
 Denet'ev, V. F., see Osetrov, P. P. - 558
 Denisov, P. I., see Isupov, G. F. - 280
 Dobrov, V. P., see Sapko, A. I. - 266
 Dolgov, V. M., see Loginov, V. I. - 529
 Dorokhin, E. I. Mechanization and Automation of the Dressing of Billets - 277
 Druzhinin, I. I., see Grigor'ev, F. N. - 318
 Dunaevskii, M. M., B. D. Il'inskii, N. V. Sinebryukhov, and M. M. Vorkel'. Safety Rules in the Rolling Industry - 48
 Dzhaniashvili, G. G., see Nizharadze, A. I. - 433
 Efroimovich, Yu. E., see Vinogradov, V. M. - 263
 Egorov, A. F., see Karachentsev, M. D. - 159
 Egorov, A. F. Smelting of Foundry Pig Iron - 164
 Elistratov, V., see Nikonov, B. - 137
 Emem'yanov, V. P. A Stationary Device for Blowing the Coolers of Blast Furnaces with Compressed Air - 470

- Ermakov, P. D. A Great Contribution to the Matter of Labor Protection - 46
- Esin, M. I., see Vinogradov, G. A. - 172
- Evseev, P. Without a Technical Inspection Section - 421
- Fain, N., see Lafulin, N. - 333
- Fastovskii, B. G. and A. N. Fundé. The Production and Use of Economic Hot-Rolled Sections - 365
- Fedorenko, G. I., see Zagreba, A. V. - 9
- Filatov, V. P., P. P. Semenenko, G. I. Baryshnikov, and V. I. Gudov. Burning in New Bottoms of Open-Hearth Furnaces - 359
- Filatov, V. P., P. P. Semenenko, G. I. Baryshnikov, and V. I. Gudov. Bottom Repair of Basic Open Hearth Furnaces Using Fine-Grain Refractory Powders - 538
- Filatov, V. P., P. P. Semenenko, G. I. Baryshnikov, and V. I. Gudov. The Packed Floor of the Open-Hearth Furnace - 218
- Filippov, S. M. Five Metallurgical Bases for Communism - 54
- Filippov, S. M. With a Confident Step - 395
- Fomin, I. I., see Sokolov, O. N. - 25
- Fomin, P. A Visit with Our Bulgarian Friends - 144
- Freiberg, M. A. Public Structures Office of the New Tube (Novotrubnyi) Factory - 287
- Fridrikhsen, V. and A. Zhdanov. The Effect of Reheating on the Scabbing of Low-Carbon Steel Killed with Aluminum - 231
- Frolov, N. P., see Shamovskii, É. Kh. - 317
- Fundé, A. N., see Fastovskii, B. G. - 365
- Galemin, I. M. Some Questions on the Design and Durability of the Hearth and the Well of Blast-Furnaces - 258
- Genken, I. Reserves for Increasing Labor Productivity - 504
- Gerasimenko, V. A. Toward a High Level of Mechanization and Automation in Ferrous Metallurgy - 243
- Gladkii, D. F., see Sapko, A. I. - 266
- Gladkii, M. M. Mechanization of the Removal of Ferromanganese Ingots - 112
- Gladkoskok, P. P., see Sharadzenidze, S. A. - 398
- Glazkov, P. G., K. P. Murzov, and A. M. Kondratyuk. Two Years' Experience in the Continuous Casting of Steel - 507
- Glazov, A. N. and A. D. Kolyvanov. Production Conference at the Kuznetsk Metallurgical Combine - 15
- Gol'berg, V. Ya., see Krichevskii, E. M. - 129
- Gorbatyuk, V. L., see Shamovskii, É. Kh. - 371
- Gorelkina, A. E., see Mikhailets, N. S. - 406
- Gorodetskii, L. N. On Methods of Sealing Rotating Shafts - 234
- Grigor'ev, F. N., I. I. Druzhinin, and V. G. Osipov. Casting 260 Tons of Steel in a Continuous Casting Plant without Interruption of the Stream - 318
- Gritskov, V. S., see Pinus, Ya. S. - 274
- Gudov, V. I., see Filatov, V. P. - 359
- Gudov, V. I., see Filatov, V. P. - 538
- Gunin, I. V. and A. A. Slin'ko. The Preparation of Turbine Blades by Rolling and Welding - 41
- Gur'yanov, V. G. The Automatic Charging of Furnaces - 166
- Il'inskii, B. D., see Dunaevskii, M. M. - 48
- Ilyukovich, B. M. and A. N. Skorokhodov. Evolved Finishing Pass for Rolling Channel No. 10 - 370
- Ilyukovich, B. M. and A. N. Skorokhodov. The Rolling of a Band Ring Section - 416
- In the Steelmaking Shops of the Country - 320
- Isupov, G. F., V. P. Sud'ya, and P. I. Denisov. Mechanization of the Removal of Slabs from Continuous Furnaces - 280
- Kablukovskii, A. V., see Vinogradov, V. M. - 263
- Kaftanova, Z. K., see Shamovskii, É. Kh. - 371
- Kagan, N. I. Increase in the Productivity of Shops for the Continuous Furnace Welding of Tubes - 512
- Kagonov, V. Yu. and G. I. Obratsov. Instruments for the Automatic Regulation of the Heat Regime of Continuous Furnaces - 553
- Kaibicheva, M. N., N. I. Mar'evich, N. A. Tulin, I. V. Smakotin, P. A. Lande, and P. Ya. Terekhina. The Use of the Unburned Metal-Encased Chrome Magnesite Bricks in Electric Furnace Walls - 362
- Kamardin, V. A. The Shape and Size of the Hearth of an Electric-Arc Steelmaking Furnace, its Lining, and Maintenance of the Latter - 356
- Kamenev, R. D. and M. A. Sukonnik. Constant Basicity of the Agglomerate - The Rule. - 527
- Kamensky, M. On the Basis of New Techniques - 500
- Kaminskii, G. P., see Kozhukh, V. Ya. - 253
- Kamkina, L. A., see Keis, N. V. - 76
- Kamyshev, G. N. and O. P. Bolotov. Converter with a Detachable Mouth - 522
- Kaplanskii, Ya. E., see Babanin, I. A. - 457
- Karachentsev, M. D. and A. F. Egorov. Three Years of the Seven Year Plan - 159
- Karpyshev, M. S. The Surface Dressing of Rolled Products with Shot - 282
- Kashakashvili, N. V., see Sharadzenidze, S. A. - 398
- Katsnelson, M. A. Blast-Furnace Master at the Makeev Metallurgical Plant - 528
- Kazakov, A. A., see Zaitsev, I. A. - 316
- Kazantsev, V. N. Special Features of the Thermal Regime and Heating of Open-Hearth Furnaces - 174
- Keis, N. V., O. Ya. Vainshtein, V. A. Khryukina, L. A. Kamkina, and E. I. Korablev. Use of Nickel-Containing Grinding Dust in Open-Hearth Furnaces - 76
- Kirichek, V. Lipetsk Sintering Plant - 467
- Kirichenko, N. D. Charging Devices for a 1719 m³ Blast Furnace - 309

- Kissin, D. A. and K. A. Bovkun. Means of Increasing the Output of Sintering Machines - 261
- Kharitonov, R. T., see Usik, I. Ya. - 331
- Khasin, G. A., V. G. Chikina, A. I. Bogdashkin, G. G. Rannev, G. L. Bruns, and Yu. I. Vashchenko. An Installation for the Warm Drawing of Steels Difficult to Deform - 91
- Khinkis, A. Heroes of the Magnitnaya Mountain - 4
- Khmelnikov, N. I. and M. M. Shapiro. Cutting Rolls of High Hardness - 232
- Khoshtariya, Sh. F., see Sharadzenidze, S. A. - 398
- Khryukina, V. A., see Keis, N. V. - 76
- Khudik, V. T. and P. M. Manusov. Experience in Setting up Roller Housings - 419
- Klimasenko, L. S., Kuznetsk Steel - 168
- Klimasenko, L. S., I. A. Sokolov, and E. Ya. Botnev. Experience in Pouring Steel from Double-Stopper Ladles with Remote Control of the Stoppers - 176
- Klochkovoi, Z. New Application of Oxygen in Electric-Arc Furnaces - 445
- Kobeza, I. I., E. I. Bembinik, and V. M. Smirnov. Port End for Heating an Open-Hearth Furnace with Natural Gas - 78
- Kobyzev, V. K., see Kravchenko, L. Ya. - 181
- Kochetov, I. M., see Skryabin, N. P. - 35
- Kochinev, E. V. On the Construction and Durability of the Hearth and well of the Blast Furnace - 104
- Kolyvanov, A. D., see Glazov, A. N. - 157
- Komanovskii, A. and D. Sprikut. The Main Direction-Modernization and Reconstruction - 423
- Komov, N. G., see Moiseenko, A. I. - 22
- Kondratyuk, A. M., see Glazkov, P. G. - 507
- Konovalov, L. N. and E. V. Pashchenko. The Technology of Melting and Pouring Cold-Rolled Transformer Steel - 313
- Korablev, E. I., see Keis, N. V. - 76
- Korchemnyi, A. M., see Peskov, N. I. - 186
- Korchemnyi, A., see Peskov, N. - 329
- Korshchikov, V. D., see Skryabin, N. P. - 375
- Korobov, I. I. and V. I. Zhigulin. The 75th Anniversary of the Petrovskii Plant - 204
- Korolev, V. D., see Osetrov, P. P. - 558
- Korshchikov, V. D., see Skryabin, N. P. - 35
- Kosolapov, A. M. Mechanization of the Removal of the Bucket from the Ladle - 29
- Kovtushenko, A. A., see Tetel'baum, P. I. - 135
- Kozhanov, M. G., M. G. Nechkin, V. G. Antipin, and Yu. Yu. Ponomarev. A Rapid Method for Fritting the New Hearths of Large-Capacity Open-Hearth Furnaces - 409
- Kozhukh, V. Ya., G. P. Kaminskii, and Yu. Z. Ratner. Device for Supervising the Operation of the Large Bell of a Blast Furnace - 253
- Krasil'nikov, A. For the Common Good - 195
- Kravchenko, L. Ya. and V. K. Kobyzhev. Ways of Saving Metal - 181
- Kravchenko, L. Ya., see Shamovskii, E. Kh. - 371
- Krichevskii, E. M. and V. Ya. Gol'berg. New Groove Design for an Argon-Arc Welding Tube Mill - 129
- Krisanov, A. F. A Device for the Automatic Lubrication of Thrust Bearings - 285
- Krisanov, A. F. The Reconstruction of the Drive Gear of Thrust Bearings - 555
- Krivoi, Ts. P., Yu. Ya. Treister, and E. M. Sherman. Automatic Regulation of Blast Among the Tuyeres of the Blast Furnace - 53
- Krivososov, Yu. I. The Efficiency in Use of Steel, Weld-Deposited and Cast-Iron Rolls in the Finishing Stand of a 2800 mm Mill - 132
- Kuchko, I. I. and N. P. Kudryavtsev. Production of Economic Rolled Profiles at KMK - 226
- Kuchko, I. I. and I. A. Sharapov. The Groove Design for H-Beams on a 500 mm Mill - 549
- Kudoyarov, M. S., see Slinchenko, E. V. - 303
- Kudryavtsev, N. P., see Kuchko, I. I. - 226
- Kupriyanov, V. A., see Bugrov, N. S. - 271
- Kuznetsov, A. F. Modernization of the Roughing Stand of a 2150-mm Sheet Mill - 275
- Kuznetsova, R. M., see Osetrov, P. P. - 558
- Lafulin, N., G. Aripov, and N. Fain. Automatic Facing of the Necks of Cast Iron Rolls - 333
- Laman, N. K. 100 Years of Continuous Rolling - 570
- Lande, P. A., see Kaibicheva, M. N. - 362
- Laslo Feldi. Cooling the Hearth of the Blast-Furnace with Panel Cell Coolers - 464
- Leibenzon, S. A. and A. F. Tregubenko. Steel Production by the Method of Electro-Slag Remelting - 323
- Lekhtik, A. Rapid Method of Laying the Regenerator Checkers of Open-Hearth Furnaces - 364
- Lekhtik, A. Ramming the Walls of an Open-Hearth Furnace with Refractory Pastes - 122
- Lekhtik, A. Hydro-Explosive Method of Breaking up Ingot Molds - 545
- Lekhtik, A. The Removal of Dust from under the Checkers of the Regenerators by Means of Cleaning Flues. (From Practices Abroad) - 30
- Leont'yev, S. A. and V. P. Sud'ya. Experience in the Use of a 2500 mm Wide-Strip Mill - 32
- Litovchenko, N. V. Operation of Continuous Bar Mills - 428
- Litovchenko, N. V. and M. A. Vitievskii. On the Optimum Diameter of Wire-Rod for Wire Mills - 479
- Loginov, V. I., A. N. Chechuro, and V. M. Dolgov. Blowing Oxygen into the Depth of the Blast-Furnace Hearth - 529

- Lomov, A. Ferrous Metallurgy of Uzbek in the Seven-Year Plan - 138
- Lyskov, E. P. Automation at the Sintering Plant - 461
- Makrov, Yu. V. Quality of Erection of Sintering Machines and Means of Improving It - 65
- Manusov, P. M., see Khudik, V. T. - 419
- Marchenko, A. M., see Terziyan, N. G. - 223
- Mar'evich, N. I., see Kaibicheva, M. N. - 362
- Martsinkovskii, D. B. The Use of Ore and Scrap in Converter Production - 116
- Materikin, Yu. V., see L. M. Orechkin - 306
- Medvednikov, G. Lubricating Open-Hearth Molds with Bitumen No. 4-5 - 85
- Medvinskii, M. D., see Savin, G. A. - 413
- Merekin, B. V., see Skryabin, N. P. - 375
- Mezhekov, N. Main Wealth - 45
- Mikhailets, N. S. and A. E. Gorelkina. Improvements in the Melting and Pouring of Steel at the Kuznetsk Metallurgical Combine - 406
- Milovatskii, N. Competition Between Three Giants - 154
- Mindeli, M. Sh., see Sharadzenidze, S. A. - 398
- Minin, P. N. Working Experiences on Cold-Rolling Tube Mills - 385
- Mininon, R. D., see Sedov, N. D. - 455
- Moiseenko, A. I., P. G. Terziyan, and N. G. Komov. Smelting Steel of Increased Strength in Large-Capacity Furnaces - 22
- Moshkevich, E. I., G. I. Antipenko, and E. F. Solov'eva. Book for Steel Workers - 446
- Moshkevich, E. I. The Vacuum Treatment of Transformer Steel - 450
- Murzov, K. P., see Glazkov, P. G. - 507
- Musa-Zade, M. M. and B. I. Podzharskii. Improving the Quality of Thin-Walled Tubing - 481
- Nagovitsin, V. V., see Teimer, D. A. - 86
- Nechkin, M. G., see Kozhanov, M. G. - 409
- Neshcheret, I. I. Mechanical Equipment of Sinter Plants - 69
- Nikonov, B. and V. Elistratov. Etching Baths with a Steel Shell - 137
- Nizharadze, A. I., Sh. E. Chilashvili, and G. G. Dzhaniasvili. Dry Dust Elimination When Finishing Pipes - 433
- Obraztsov, G. I., see Kagonov, V. Yu. - 553
- Ol'shanskii, M. K. and G. B. Shpigun. Pits of Heat-Resistant Concrete for the Slow Cooling of Metal - 417
- Orechkin, L. M. and Yu. V. Materikin. Reducing the Moisture Content of Tapping Hole Pastes for Blast Furnaces - 306
- Orlov, Yu. A. The Granulation of Iron - 215
- Osetrov, P. P., N. V. Sokolov, V. D. Korolev, V. F. Denet'ev, and R. M. Kuznetsova. High Endurance Drill Rope - 558
- Osipov, V. G., see Grigor'ev, F. N. - 318
- Osokin, V. A., see Peskov, N. I. - 186
- Ostroukhov, M. Ya. The Dimensions of the Hearth and the Number and Parameters of the Air Tuyeres - 213
- Ostroukhov, M. Ya. and I. G. Timofeev. The Service of the Charging Apparatus of the Blast-Furnace - 261
- Ovcharenko, N. L. On the Durability of the Hearth and Well of the Blast-Furnace - 466
- Ovcharenko, V. M. Two Hundredth Anniversary of the Beloretsk Metallurgical Combine - 440
- Panev, G. A. and M. A. Zalevsky. Mechanization of the Process of Opening the Iron Tap Hole - 349
- Panfilov, M. I. Handbook for the Steelmaker - 239
- Parastashvili, V. V., see Sharadzenidze, S. A. - 398
- Pashchenko, E. V., see Konovalov, L. N. - 313
- Pashinskii, V. F. Obtaining Clean Ingot Surfaces on the Casting Machine - 110
- Pashinskii, V. and G. Vakulenko. All-Cast Small Bell - 469
- Perlov, N. I. and V. A. Vladimirov. The Use of Oxygen in American Open-Hearth Production - 388
- Peskov, N. I., V. A. Osokin, and A. M. Korchemnyi. Changing the Groove Design of the First Stand in 360 mm Mill - 186
- Peskov, N., A. Burdin, and A. Korchemnyi. A New Profile for the Ploughshare Periodic Strip for Agriculture - 329
- Pevzner, S. The First Seminar for Furnace Thermotechnics - 343
- Pichak, G. V., see Sapko, A. I. - 266
- Pinus, Ya. S., V. S. Gritskov, and A. P. Bezrukov. The Automatic Measurement of the Mixer Jacket Temperature - 274
- Pisklich, V. D. Surfacing of Equipment Part Must Be Used More Widely - 514
- Plechun, G. V. A New Process for the Production of Special Steels - 448
- Plekhanov, P. S. The Central Works Laboratory - 189
- Podzerko, V. A. Fulfilling the Resolutions of the Party. The Problems of the Trade Union Organizations in Connection with the Resolutions of the 22nd Congress of the Communist Party of the Soviet Union - 1
- Podzerko, V. A. The Sixth Congress of the Metallurgical Industry Trade Union - 199
- Podzharskii, B. I., see Musa-Zade, M. M. - 481
- Pokhvisnev, A. N., V. P. Tarasov, and F. P. Tarasov. A Charging System with Two Large Bells - 62
- Poltavets, V. V. Errors in the Regulation of Gas Flow and the Distribution of Materials at the Mouth - 210
- Polyak, I. B. High-Calorie Fuel for Open-Hearth Furnaces - 82
- Ponomarev, Yu. Yu., see Kozhanov, M. G. - 409

- Popov, P. G. and N. I. Zakharenko. The Blooming Mill at KMC - 179
- Posazhennikov, V. A. All-welded Steel Ladles - 269
- Pritykin, D. P. Improvement of the Drive of the Sintering Machine - 108
- Pritykin, D. P. Reconstruction of the Limestone Crushing Department of the Sintering Mill - 249
- Privalov, M. M. Forward and Only Forward! - 190
- Pushkov, V. G. and V. G. Vinokurov. The Steel Workers of the Urals Strive to Utilize Intrinsic Industrial Resources - 497
- Raev, Yu. O., see Burtsev, V. V. - 161
- Rannev, G. G., see Khasin, G. A. - 91
- Ratner, Yu. Z., see Kozhukh, V. Ya. - 253
- Reznikov, D. N. On the Durability of the Well of the Blast-Furnace - 535
- Rozhkov, D. M. and A. V. Anurin. A Unit for Cooling and Loading Iron into Cars - 351
- Rukhadze, D. A., see Sharadzenidze, S. A. - 398
- Rybochkin, R. F. Repair of Large Blast-Furnace Bells - 67
- Sapko, A. I., L. G. Sviridenko, V. P. Dobrov, D. F. Gladkii, I. S. Buzunov, and G. V. Pichak. Remote Control of Ladle Stoppers - 266
- Sartan, Ya. Kh. A New Technique for Preparing Bright Bar from High Speed Steel R18 - 88
- Savin, A. I., see Turubiner, A. L. - 221
- Savin, G. A. and M. D. Medvinskii. Development of the Technique of Tube Drawing on Drum Mills - 413
- Sedov, N. D. and R. D. Mininon. In the Heat-Treatment Department of the Plant - 455
- Semenenko, P. P., see Filatov, V. P. - 359
- Semenenko, P. P., see Filatov, V. P. - 538
- Sergeev, B. There are Reserves at "Dneprospetsal" - 560
- Sergeev, N. G. The Country's Largest Shop for Continuous Furnace Welding of Tubes - 510
- Shabalin, A. Increasing the Life of the Back Walls of Open-Hearth Furnaces - 225
- Shabalin, A. F. The Desulfurization of Steel in Basic Open-Hearth Furnaces - 472
- Shamovskii, E. Kh., A. D. Zykov, Z. K. Kaftanova, L. Ya. Kravchenko, N. P. Frolov, E. A. Zhuravkin, and V. L. Gorbatiuk. Mechanization of Flame Scarfing of Blooms - 371
- Shapiro, B. S. The Reserves of the Rolling Industry for the Service of Communism - 490
- Shapiro, I. S. Complete Utilization of the Iron Ore of the Urals - 353
- Shapiro, I. S. An Ore Base for Ferrous Metallurgy in the USSR - 494
- Shapiro, M. M., see Khmelkov, N. I. - 232
- Sharashidze, S. Sh., see Sharadzenidze, S. A. - 398
- Sharadzenidze, S. A., N. V. Kashakashvili, P. P. Gladkostok, M. Sh. Mindeli, V. V. Parastashvili, D. A. Rukhadze, Sh. F. Khoshitariy, and S. Sh. Sharashidze. Blast-Furnace Operation Utilizing Natural Gas - 398
- Sharapov, I. A., see Kuchko, I. L. - 549
- Sheftel', N. I. New Techniques at the Metallurgical Plants of the Russian Soviet Federated Socialist Republic in 1962 - 101
- Sherman, E. M., see Krivoi, Ts. P. - 59
- Shpigun, G. B., see Ol' shanskii, M. K. - 417
- Shtepa, A. Looking Ahead - 194
- Shur, A. B. Errors in the Regulation of Gas Flow and the Distribution of Materials at the Mouth - 344
- Shutov, R. A. Deoxidation of 25 L and 35 GL Steels by Ferromanganese in the Ladle - 217
- Simonenko, F. N., see Vydrina, Zh. A. - 28
- Simonov, V. I., see Vinogradov, V. M. - 263
- Sinebryukhov, N. V., see Dunaevskii, M. M. - 48
- Skorokhodov, A. N., see Ilyukovich, B. M. - 370
- Skorokhodov, A. N., see Ilyukovich, B. M. - 416
- Skutin, A. A Bulldozer for Open-Hearth Repairs - 273
- Skryabin, N. P., B. V. Merekin, and V. D. Korshchikov. Determination of Metal Economy (With Delivery of Rolled Products Based on Theoretical Weight) - 375
- Skryabin, N. P., I. Ya. Vinokurov, V. D. Korshchikov, and I. M. Kochetov. The Rolling of Channel Sections with Increased Taper in the Finishing Groove - 35
- Slinchenko, E. V., N. P. Yarmolinskii, M. S. Kudoyarov, and P. V. Anan'ev. Experience in the Operation of a Blast-Furnace on Evaporative Cooling - 303
- Slin'ko, A. A., see Gunin, I. V. - 41
- Slin'ko, N. F., see Zagreba, A. V. - 9
- Smakotin, I. V., see Kaibicheva, M. N. - 362
- Smirnov, V. M., see Kobeza, I. L. - 78
- Smolyarenko, D. A. The Second All-Union Congress of the Scientific-Technical Society of Ferrous Metallurgy - 147
- Sokolov, I. A., see Klimasenko, L. S. - 176
- Sokolov, N. V., see Osetrov, P. P. - 558
- Sokolov, O. N., V. P. Tunkov, and I. I. Fomin. Production of Charge Iron in the Basic Open-Hearth Furnace - 25
- Solov'eva, E. F., see Moshkevich, E. I. - 446
- Soskov, A. I. Increasing the Life of the Links of the Casting Machines - 469
- Sprikut, D. Young Cadres in Command - 336
- Sprikut, D., see Komanovskii, A. - 423
- Sudoplatov, L. V., B. V. Yasyunas, and G. Ya. Berkovich. The Conversion of Limestone Cupolas to Firing by Natural Gas - 119
- Sud'ya, V. P., see Leont'yev, S. A. - 32
- Sud'ya, V. P., see Isupov, G. F. - 280
- Sukonnik, M. A., see Kamenev, R. D. -
- Sviridenko, L. G., see Sapko, A. I. - 266

- Tarasov, F. P., see Pokhvisnev, A. N. - 62
- Tarasov, V. P., see Pokhvisnev, A. N. - 62
- Teimer, D. A., V. V. Nagovitsin, and V. M. Afonina. The Warm Drawing of Steels and Alloys Difficult to Deform - 86
- Terekhina, P. Ya., see Kaibicheva, M. N. - 362
- Tereschenko, N. A., see Bornatskii, I. I. - 299
- Tereshko, N. *Their Own Achievement* - 43
- Terziyan, N. G. and A. M. Marchenko. Pouring Steel through Paraffin-Waxed Unburnt Magnesite Nozzles - 223
- Terziyan, P. G., see Moiseenko, A. I. - 22
- Tetel'baum, P. I. and A. A. Kovtushenko. Liquid Friction Vertical Bearings - 135
- Timofeev, I. G., see Ostroukhov, M. Ya. - 261
- Tishinskii, Yu. V. A Slide Rule for Determining the Weight and Length of Tube and Continuous Section - 93
- Tregubenko, A. F., see Leibenzon, S. A. - 323
- Treister, Yu. Ya., see Krivoi, Ts. P. - 59
- Treister, Yu. Ya. New Means for the Complex Automation of the Blast-Furnace Industry - 246
- Trifonov, O. V. Work in the Casting Bay - 545
- Troshev, M. A. We Steer the Course to Communism - 334
- Tsukernik, Z. G., see Burdakov, D. D. - 238
- Tulin, N. A., see Kaibicheva, M. N. - 362
- Tulin, N. A. and N. F. Bastrikov. Lining the Bottoms of Low-Capacity Electric-Arc Furnaces - 540
- Tunkov, V. P., see Sokolov, O. N. - 25
- Turubiner, A. L. and A. I. Savin. Rational Working Diagram for the Reversing Devices of Open-Hearth Furnaces Fired with Natural Gas - 221
- Usik, I. Ya. A Device for Knurling Rolling Mill Rolls - 286
- Usik, I. Ya. and R. T. Kharitonov. Modernization of Mechanical and Electrical Equipment - 331
- Uvarov, V. V., see Zaitsev, I. A. - 316
- Vagin, A. A. The Blast-Furnace Industry - 261
- Vainshtein, O. Ya., see Keis, N. V. - 76
- Vakulenko, G., see Pashinskii, V. - 469
- Vashchenko, Yu. I., see Khasin, G. A. - 91
- Vashchenko, Yu. I. Rejection of Tubes in Rolling on Installations with Three-Roll Mills - 483
- Vasilchenko, N. I. Increasing the Durability of the Hearth and Well of Blast-Furnaces - 520
- V. E. An Electric Safeguard Against Overfilling the Hopper for the Ore Charge - 111
- V. E. The Organization of Current Repairs of Blast-Furnaces without Burning Gas at the Mouth - 113
- V. E. Change of the Installation and Reinforcement of the Grates on the Agglomerate Bins - 114
- V. E. A Method of Repairing the Liners of Blast-Furnace Tuyeres - 115
- Vernigor, P. Safety in the Gas Industry - 563
- Vikhrov, I. N. Improvement of the Equipment in the Blast-Furnace Unit of the Kuznets Metallurgical Combine (KMC) - 255
- Vinogradov, G. A. and M. I. Esin. Masters of High-Speed Repairs - 172
- Vinogradov, V. M., Yu. E. Efroimovich, A. V. Kablukovskii, and V. I. Simonov. Automation of the Supervision and Control of the Thermal Conditions of the Electric Arc Furnace - 263
- Vinokurov, I. Ya., see Skryabin, N. P. - 35
- Vinokurov, V. G., see Pushkov, V. G. -
- Vitievskii, M. A., see Litovchenko, N. V. - 479
- Vladimirov, V. A., see Perlov, N. I. - 388
- Voloshin, Yu. T. Is Constant Basicity of the Agglomerate Necessary? - 209
- Vorkel', M. M., see Dunaevskii, M. M. - 48
- Vydrina, Zh. A. and F. N. Simonenko. Increasing the Durability of the Steel Tap Hole - 28
- Yarmolinskii, N. P., see Slinchenko, E. V. - 303
- Yasyunas, B. V., see Sudoplatov, L. V. - 119
- Zagreba, A. V., N. F. Slin'ko, and G. I. Fedorenko. Blowing and Operating a 2000 m³ Blast Furnace - 9
- Zaitsev, I. A., A. A. Kazakov, E. D. Akol'tsev, and V. V. Uvarov. The Production of Semikilled St. 5ps Steel for Periodic Profiles - 316
- Zakharenko, N. I., see Popov, P. G. - 179
- Zalevsky, M. A., see Panev, G. A. - 349
- Zalkind, A. S. Utilization of Refractory Blocks in Overhauling Open-Hearth Furnaces - 475
- Zhdanov, A., see Fridrikhsen, V. - 231
- Zherebin, B. N. The 30th Anniversary of the Siberian Giant - 151
- Zhigulin, V. I., see Korobov, I. I. - 204
- Zhilo, M. E. Experience in Improving Working Conditions in Open-Hearth Furnaces - 380
- Zhivago, V. I. The Latest Position with Regard to Open-Hearth Furnace Overhauls - 125
- Zhuravkin, E. A., see Shamovskii, E. Kh. - 317
- Znatkov, S. The Innovators of a Particular Mill - 341
- Zykov, A. D., see Shamovskii, E. Kh. - 371

